

AMENDMENTS TO THE CLAIMS:

The listing of claims will replace all prior versions and listings of all claims in the application.

1. (currently amended) A structurally biased integrin I domain protein comprising an amino acid sequence that is less than ~~about~~ 98% identical to human integrin I domain protein wherein the alterations to the protein occur in at least two noncontiguous regions wherein said integrin I domain protein is artificially biased to exist in an "open" conformation.

2. (original) A full length integrin comprising the domain of claim 1.

3. (currently amended) A non-naturally occurring integrin I domain protein comprising at least 34 amino acid substitutions ~~as compared to human integrin I domain protein~~, wherein at least 2 of said substitutions correspond to positions of the human alpha-M I domain protein ~~are selected from the amino acid residues at positions~~ selected from the group consisting of: positions 139, 153, 156, 157, 160, 199, 215, 219, 223, 238, 239, 240, 259, 269, 271, 287, 299, and 308.

4. (currently amended) The non-naturally occurring integrin I domain protein according to claim 3, wherein said ~~comprising substitutions at positions of the human~~ alpha-M I domain protein are selected from the group consisting of: 156, 160, 199, 215, 238, 239, 240, 259, 269, 271, 287, 299, and 308.

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5. (currently amended) The non-naturally occurring integrin I domain protein according to claim 3, wherein said ~~comprising substitutions at positions of the human~~ alpha-M I domain protein are selected from the group consisting of: 156, 199, 215, 238, 239, 240, 259, 287, and 299.

6. (currently amended) The non-naturally occurring integrin I domain protein according to claim 3, wherein said ~~comprising substitutions at positions of the human~~ alpha-M I domain protein are selected from the group consisting of: 139, 153, 157, 199, 238, 239, 287, and 299.

7. (currently amended) The non-naturally occurring integrin I domain protein according to claim 3, wherein said ~~comprising substitutions at positions of the human~~ alpha-M I domain protein are selected from the group consisting of: 215, 219, 223, and 238.

8 to 13. (cancelled)

14. (original) A pharmaceutical composition comprising an integrin I domain protein according to claim 1, 2, or 3 and a pharmaceutical carrier.

15 to 28. (cancelled)

29. (previously presented) A composition comprising an integrin that is artificially biased to exist in the open conformation, where the artificial bias is a result of noncontiguous alterations of the protein, these alterations resulting in a protein that is less than 98% identical to the wild-type protein, crystallized with ligand.
30. (previously presented) A composition comprising an integrin that is artificially biased to exist in the closed conformation, where the artificial bias is a result of noncontiguous alterations of the protein, these alterations resulting in a protein that is less than 98% identical to the wild-type protein, crystallized with ligand.
31. (previously presented) A non-naturally occurring integrin I domain protein having SEQ ID NO:5.
32. (previously presented) A non-naturally occurring integrin I domain protein having SEQ ID NO:4.
33. (previously presented) A non-naturally occurring integrin I domain protein having SEQ ID NO:3.
34. (new) A non-naturally occurring integrin I domain protein comprising amino acid substitutions at positions corresponding to positions 156, 160, 199, 215, 238, 239, 240, 259, 269, 271, 287, 299, and 308 of the human alpha-M I domain protein.

35. (new) A non-naturally occurring integrin I domain protein comprising amino acid substitutions at positions corresponding to positions 156, 199, 215, 238, 239, 240, 259, 287, and 299 of the human alpha-M I domain protein.

36. (new) A non-naturally occurring integrin I domain protein comprising amino acid substitutions at positions corresponding to positions 139, 153, 157, 199, 238, 239, 287, and 299 of the human alpha-M I domain protein.

37. (new) A non-naturally occurring integrin I domain protein comprising amino acid substitutions at positions corresponding to positions 215, 219, 223, and 238 of the human alpha-M I domain protein.

38. (new) A structurally biased integrin I domain protein comprising an amino acid sequence that is less than about 98% identical to human integrin I domain protein wherein the alterations to the protein occur at core positions in at least two noncontiguous regions wherein said integrin I domain is artificially biased to exist in an "open" conformation.

39. (new) The structurally biased integrin I domain protein according to claim 38, wherein said core positions correspond to positions of the human alpha-M I domain protein selected from the group consisting of 139, 153, 156, 157, 160, 199, 215, 219, 223, 238, 239, 240, 259, 269, 271, 287, 299, and 308.